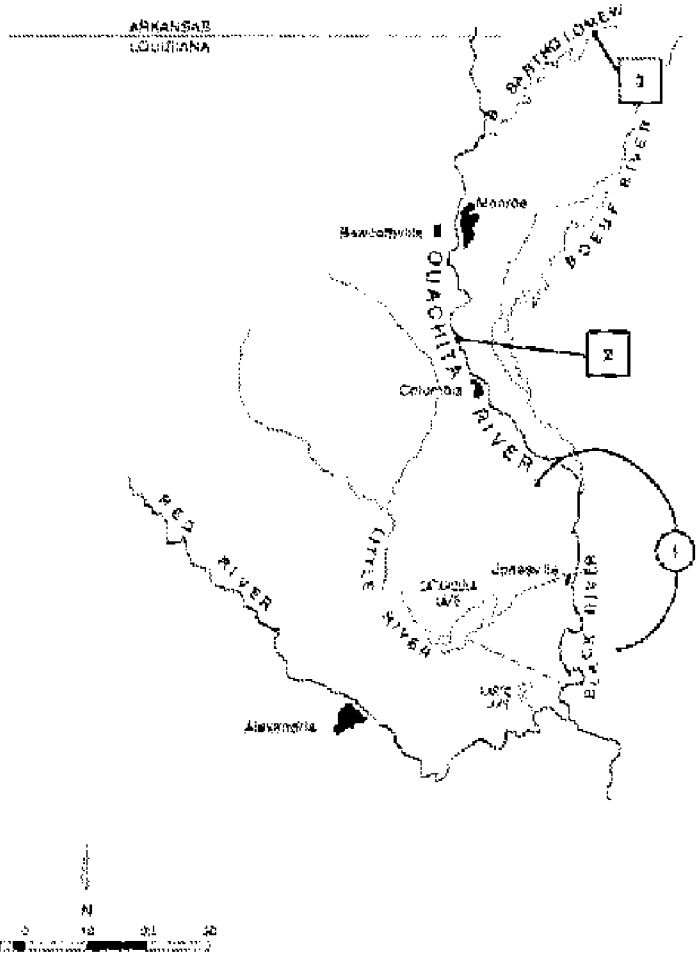
Ouachita River Basin



Projects

Navigation

1 Ouachita and Black Rivers (9-foot Navigation Project),

Flood Control

2 Ouachita River and Tributaries, Arkansas and Louisiana

3 Bayou Bartholomew and Tributaries, Arkansas and Louisiana

Ouachita River Basin

Introduction

The Ouachita River Basin, situated within portions of Arkansas and Louisiana, contains approximately 16,000 square miles. The Louisiana portion of the basin is bounded by the Arkansas-Louisiana state line on the north, by the Tensas River Basin on the east, and by the Red River Basin on the west. Where the Ouachita River crosses into Louisiana, the topography is characterized by level to slightly rolling bottomlands and terraces, known as the alluvial valley of the Mississippi River or the Mississippi Delta. The area is dissected by numerous wetlands, lakes and bayous. Bayou Bartholomew and Bayou D'Arbonne are the major tributaries of the Ouachita in Louisiana.

Early water resource developments in the Ouachita Basin by the Federal government were limited to navigation improvements. However, after the 1927 flood, a number of flood control projects were authorized for construction. The various authorizations culminated in a comprehensive project for the entire basin.

Projects

Ouachita and Black Rivers (9-Foot Navigation Project), Arkansas and Louisiana

(Vicksburg District)

Improvement of the Ouachita-Black rivers for navigation was first authorized in 1871 and consisted of snagging and clearing of the channel. Work on the original lock and dam project was completed in 1926, and provided a navigable depth of 6.5 feet from the mouth of Black River in Louisiana to Camden, Arkansas, a distance of 351 miles. In 1950, the original project was modified to increase the navigable depth to 9 feet beginning at the mouth of Red River and extending to Camden, on the Ouachita River upstream from the Arkansas-Louisiana state line. With use of four new locks and dams, the 9-foot-deep navigation project make possible the free interchange of river traffic between the Mississippi and Ouachita rivers. In addition, the project includes improvements to increase area recreational opportunities and to benefit

Sand bars on the Ouachita River

the fish and wildlife environment. The four new locks and dams replaced six obsolete structures. The Jonesville and Columbia locks and dams in Louisiana opened to navigation in 1972. The Felsenthal and Calion locks and dams in Arkansas were placed in operation in 1984 and 1985, respectively. Each of the new locks is 84 feet wide and 600 feet long and impounds a slack-water pool approximately 100 miles long. These locks will accommodate a tow consisting of four standard sized barges, two abreast. Navigation improvements on the Ouachita in Arkansas and Louisiana also include 11 bendway cutoffs and 14 bendway widenings. The completion of the channel work is on hold pending a consensus from the states of Arkansas and Louisiana on the level of development desired.

Fish and wildlife features of the Ouachita-Black navigation project in Louisiana include the Catahoula Diversion Channel and Control Structure, the Little River Closure Dam, and a refuge near Bayou D'Arbonne. The diversion channel and structure and closure dams, located in the Jonesville Lock and Dam pool southwest of Jonesville, have been constructed and are in operation. The channel diverts flows from Catahoula Lake into Black River, downstream from the lock and dam. The control structure is used to regulate the flow entering the diversion channel from the lake. The closure dam is located on Little River. These features allow for regulation of stages in the lake to permit its continued use as a resting and feeding area for migratory waterfowl. Upstream from Columbia Lock and Dam within the Columbia pool area, 18,000 acres of land along Bayou D'Arbonne have been acquired for use as a national fish and wildlife refuge.

Recreation facilities, including boat-launching ramp, parking areas, picnic tables and cooking grills, have been provided by the Corps of Engineers in 17 areas along the Ouachita River. In 1994, 3.3 million people used these facilities.

From 1986 to 1995, the average annual tonnage on the Ouachita Black Waterway was 1,080,000. The total estimated cost of this project, as of 1988, was $256 million.

Ouachita River and Tributaries, Arkansas and Louisiana

(Vicksburg District)

This project, authorized in 1950, is a comprehensive plan for flood control, power and other improvements for the Ouachita River and Tributaries. The project provides varying degrees of flood protection to a large area of the Ouachita River Basin. An important feature of the project in Louisiana is the local protection provided to Monroe, West Monroe, Columbia, Bawcomville, and other areas, by the Ouachita River levees and associated local protection levees. The flood control features in Louisiana are described in the following paragraphs. The Arkansas Water Resources Development Booklet discusses the project features located in that state.

Columbia Lock and Dam on the Ouachita River

Ouachita River Levees

(Vicksburg District)

The Ouachita River levees extend from Bastrop, along the south bank of Bayou Bartholomew and the east bank of the Ouachita River to the vicinity of Sandy Bayou, approximately 74 miles below Monroe, and was constructed under authority of the Flood Control Act in May 1928. Protection levees and other improvements for Monroe, West Monroe, Bawcomville, and Columbia were

also included in the Ouachita levees project. The levee at Monroe includes 1.9 miles of floodwall, with a unique 1,750-foot fold-down floodwall near the center portion. Construction of the fold down section was completed in 1977. During periods when flooding is not a threat to Monroe, the fold-down section serves as a sidewalk and a place from which to view the river.

On the west bank of the Ouachita River, there are loop levees around West Monroe, Bawcomville and Columbia. The West Monroe protection project consists of 5.5 miles of levee and 1.6 miles of floodwall. The local protection project at Columbia consists of 1.3 miles of levee with drainage structures, an outfall sewer with drainage facilities, floodgates, and a storm sewer and pumping plant. Bawcomville received flood protection from the construction of a loop levee, pumping plant, floodgates and associated ditches.

A study of the Ouachita River levee system to review the feasibility of completing this project was revised in 1988. The report recommended that selected portions of the Ouachita River levees be constructed to the 1956 authorized project grade. The 1991 Water and Energy Appropriations Act gave the Federal government responsibility for the rehabilitation and replacement of the deteriorated drainage structures.

Chauvin Bayou
(Vicksburg District)
The Chauvin Bayou project consists of a 250-cubic-foot per second pumping plant located adjacent to Chauvin Bayou at the Ouachita River levee and a water control structure in Canal L-11. The Canal L-11 control structure and the Chauvin Bayou pumping plant were completed in 1993. Design and construction activities are ongoing for the rehabilitation or replacement of approximately 64 drainage structures in the system. Currently, 57 structures have been completed or under construction. Additionally, design is underway to raise the levee from Bastrop to Monroe to the 1956 grade.

Flood damages prevented to date by the overall Ouachita River and Tributaries project amount to approximately $1.6 billion (1996).

Programs and Surveys

Flood Plain Information Reports
Black Bayou (Vicksburg District). A special flood hazard information report was prepared for the area along Black Bayou in West Monroe, where residential and commercial properties are affected by flooding. The report was completed in 1973.

Chauvin Bayou Pumping Plant

Monroe (Vicksburg District). A flood plain information report was prepared for Monroe and Ouachita parish for lands along 31 miles of the Ouachita River, in the vicinity of the city, and for lands along Youngs Bayou, Chauvin Bayou, and Bayou LaFourche.

West Monroe (Vicksburg District). A flood plain information report was completed in 1968 for the city of West Monroe and Ouachita Parish, for lands along 32 miles of the Ouachita River in the vicinity of West Monroe.

Special Studies (Vicksburg District). A Flood Hazard Evaluation was completed on Lake D'Arbonne, Stowe Creek, Middle Fork Bayou, and Corney Bayou in Union Parish.

Flood Insurance Studies

Studies have been completed in Louisiana for the following areas: Caldwell Parish, Columbia, Monroe, Ouachita Parish, and West Monroe.

Surveys Authorized or Under Way

The Monroe-West Monroe area was studied in 1976 to identify problems relating to water supply, bank stabilization, navigation, the development of hydroelectric power, flooding and recreation. The study recommended projects in Chauvin Bayou and Youngs Bayou. The Chauvin Bayou and Youngs Bayou plans were recommended for construction under authority of Section 205 of the Flood Control Act of 1948. Construction of the Chauvin Bayou project is complete. The Youngs Bayou report was completed in February 1987 and recommended a plan for channel improvements to Youngs Bayou and bridge replacement in Pine Bayou which would reduce average annual flood damages by approximately 58 percent. Design activities for the Youngs Bayou project are on hold until the local sponsor expresses a willingness to cost share in the project.

Ouachita Parish, Louisiana (Vicksburg District). Reconnaissance studies of flooding problems in Ouachita Parish were initiated in January 1994 under the Ouachita River Basin study authority. Specific problem areas investigated included the Chauvin Bayou area in north Monroe, which floods from interior ponding from Bayou LaFourche. Alternative plans of improvement included an additional pumping station in the Chauvin Bayou area adjacent to River Styx Bayou and various levee alignments in southeast Ouachita Parish. Studies indicate that an additional pumping station in the River Styx area is economically justified. A reconnaissance report was completed in January 1995 recommending that further studies of the River Styx pumping station be undertaken under authority of Section 205 of the Flood Control Act of 1948.

Great Egret